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2 **METHOD FOR RECOVERING**
3 **MATERIALS FROM A WASTE TIRES**

4 **ABSTRACT OF THE DISCLOSURE**

5 A waste tire processing apparatus (10) reacts waste tires (26) with a molten reactant
6 metal (19) to recover primarily carbon and stainless steel. The apparatus (10) includes a tire
7 positioning arrangement (20) for positioning the waste tires (26) in the molten reactant metal
8 (19) for a reaction period. After the reaction period, the tire positioning arrangement (20)
9 removes from the molten metal non-reacted solids remaining after the reaction. The non-
10 reacted solids comprise primarily stainless-steel included in the waste tires. As the waste tires
11 (26) are reacted in the molten reactant metal (19), a gas recovery arrangement (14) collects
12 process gases released from the molten metal. The gas recovery arrangement (14) recovers
13 primarily carbon, metal salts, hydrogen, and nitrogen.